

This listing of claims will replace all prior versions and listings of the claims in the application:

Listing of the Claims:

- B2
1. (Currently amended): A heating device for controllably heating an article, the heating device defining a processing chamber to hold the article and comprising:
 - a) a housing including:
 - a susceptor portion surrounding at least a portion of the processing chamber; and
 - a conductor portion interposed between the susceptor portion and the processing chamber; and
 - b) an EMF generator ~~operable~~ configured to induce eddy currents within the susceptor portion such that substantially no eddy currents are induced in the conductor portion;
 - c) wherein the conductor portion is operative to conduct heat from the susceptor portion to the processing chamber; and
 - d) wherein eddy currents induced by the EMF generator are present in the susceptor portion and substantially no eddy currents are present in the conductor portion.
 2. (Canceled)
 3. (Original): The heating device of Claim 1 wherein the susceptor portion includes a susceptor core of a first material and a susceptor coating of a second material.
 4. (Original): The heating device of Claim 3 wherein the first material is graphite.

5. (Original): The heating device of Claim 3 wherein the second material is SiC.

6. (Original): The heating device of Claim 3 wherein the second material is selected from the group consisting of refractory metal carbides.

7. (Original): The heating device of Claim 6 wherein the second material is TaC.

8. (Original): The heating device of Claim 1 wherein substantially all surfaces of the conductor portion in fluid communication with the processing chamber are formed of SiC.

B2
cont
9. (Original): The heating device of Claim 8 wherein the conductor portion includes a conductor core of a first material and a conductor coating of a second material different from the first material.

10. (Original): The heating device of Claim 9 wherein the first material is graphite.

11. (Original): The heating device of Claim 9 wherein the second material is a refractory metal carbide.

12. (Original): The heating device of Claim 9 wherein the second material is SiC.

13. (Currently amended): The heating device of Claim 1 wherein:

a) the susceptor portion includes a first susceptor portion and a second susceptor portion disposed on opposed sides of the processing chamber; and

b) the conductor portion includes a first liner disposed between the first susceptor portion and the processing chamber and a second liner disposed between the second susceptor portion and the processing chamber.

14. (Original): The heating device of Claim 13 wherein the second susceptor portion includes a platter region, the heating device further including:

a platter adapted to support the article disposed in the processing chamber and overlying the platter region; and

an opening defined in the second liner and overlying the platter region and interposed between the platter region and the platter.

15. (Original): The heating device of Claim 14 wherein the second liner includes first and second liner members disposed on opposed sides of the platter and each defining a portion of the opening, wherein the first and second liner members are separable.

16. (Original): The heating device of Claim 15 wherein at least one of the first and second liner members is separable from the second susceptor portion.

17. (Original): The heating device of Claim 1 including a platter adapted to support the article disposed in the processing chamber.

18. (Currently amended): The heating device of Claim 17 wherein the EMF generator is ~~operable~~ configured to generate the electromagnetic field such that:

~~the electromagnetic field does not induce~~ there are no substantial eddy currents induced in the platter by the electromagnetic field; and the platter conducts heat from the susceptor portion to the processing chamber.

19. (Original): The heating device of Claim 17 including an opening defined in the conductor portion, wherein the opening is interposed between the susceptor portion and the platter.

B2
wmt

20. (Original): The heating device of Claim 17 wherein the platter is adapted to rotate relative to the susceptor portion.

21. (Original): The heating device of Claim 1 including an inlet opening and an outlet opening in fluid communication with the processing chamber.

22. (Original): The heating device of Claim 21 including a supply of processing gas reactive to heat to deposit SiC.

23. (Original): The heating device of Claim 1 wherein the EMF generator is operable to heat the susceptor portion to a temperature of at least 1400°C.

B2
cont
24. (Currently amended): A housing assembly for an induction heating device, the housing assembly defining a processing chamber and comprising:

a) a susceptor surrounding at least a portion of the processing chamber; and

b) a thermally conductive liner interposed between the susceptor and the processing chamber, wherein the liner is separately formed from the susceptor;

c) wherein the liner is removable from the susceptor without requiring disassembly of the susceptor.

25. (Original): The housing assembly of Claim 24 including:
a first susceptor portion and a second susceptor portion disposed on opposed sides of the processing chamber;

a first liner disposed between the first susceptor portion and the processing chamber; and

a second liner disposed between the second susceptor portion and the processing chamber.

26. (Currently amended): ~~The housing assembly of Claim 24~~ A housing assembly for an induction heating device, the housing assembly defining a processing chamber and comprising:

a) a susceptor surrounding at least a portion of the processing chamber; and

b) a thermally conductive liner interposed between the susceptor and the processing chamber, wherein the liner is separately formed from the susceptor;

c) wherein the susceptor includes a platter region, the housing assembly further including:

a platter adapted to support the article disposed in the processing chamber and overlying the platter region; and

an opening defined in the liner and interposed between the platter region and the platter.

B2
Cont
27. (Original): The housing assembly of Claim 26 wherein the liner includes first and second liner members disposed on opposed sides of the platter and each defining a portion of the opening, wherein the first and second liner members are separable.

28. (Original): The housing assembly of Claim 27 wherein at least one of the first and second liner members is separable from the susceptor.

29. (Original): The housing assembly of Claim 24 including means for positively and removably locating the liner relative to the susceptor.

30. (Currently amended): ~~The housing assembly of Claim 24~~ A housing assembly for an induction heating device, the housing assembly defining a processing chamber and comprising:

a) a susceptor surrounding at least a portion of the processing chamber; and

b) a thermally conductive liner interposed between the
susceptor and the processing chamber, wherein the liner is separately formed
from the susceptor;

c) wherein the liner varies in thickness along at least a portion of
its length.

Claims 31-42 (canceled).

43. (New): A housing assembly for an induction heating device, the
housing assembly defining a processing chamber and comprising:

a) a susceptor surrounding at least a portion of the processing
chamber; and

b) a thermally conductive liner interposed between the susceptor
and the processing chamber, wherein the liner is separately formed from the
susceptor;

c) wherein the susceptor includes a susceptor core of a first
material and a susceptor coating of a second material; and

d) wherein the second material is selected from the group
consisting of refractory metal carbides.

44. (New): The housing assembly of Claim 43 wherein the second material is
TaC.

45. (New): The housing assembly of Claim 43 wherein the first material is
graphite.
